

Coala Printbond is an Aluminium Composite Panel combining two aluminium skins on a black LDPE core. The 80µ Coala easy-peel liner is specially processed to avoid “ghost” images when printing. Coala’s optimized Digital matt White surface is perfect for UV flatbed printing. Additionally uniform flatness, caliper and dimensional sheet stability ensure the panel is an excellent choice for full coverage digital printing. Coala Printbond is ideal for all 2D and 3D signage and POS applications.

## GENERIC CARE AND HANDLING

### STORAGE



Coala Printbond should be stored in dry conditions and allowed to acclimatize to a minimum of 18°C before processing. Avoid storage in direct sunlight and maintain the panels in their original packaging where possible and on a level surface. It is advised not to store panels in a vertical position.

### HANDLING



Aluminium Composite sheets should always be handled and lifted from the pallet horizontally - holding all four corners and moved horizontally to the processing area by 2 people.

### PROTECTIVE FILM



Avoid the use of marker pens, inks and labels on the protective film. Some solvents or plasticisers may penetrate the film and affect the lacquered surface. Always use “lint-free” gloves when removing the protective film, handling the panels and once the easy-peel protective film has been removed.

### INSTALLATION



All ACM products must be used directionally as shown on the protective liner. Failure to do so may result in colour differences due to light reflections. Metallic colours may be particularly affected.



### CLEANING AND MAINTENANCE



Cleaning

Regular cleaning of the Coala Printbond - panels will help maintain the integrity of your aluminium composite installation.

Rinse the panels with clean cold water before using a pH-neutral household cleaning agent diluted in water. Do not use any high alkaline or acidic solutions or abrasive cleaning tools. Always test a small area of the panel beforehand. Dry down with a soft clean cloth to avoid smearing.

### THERMAL EXPANSION



Coala Printbond can be used in temperatures ranging between -50°C to +80°C and is subject to thermal expansion or contraction. Appropriate allowances must be made for thermal movement and suitable fixings should be used for installation. The thermal expansion calculation is 0.24mm/mtr at 10°C of change.

### RECYCLABLE



Coala Printbond is recyclable. Please consult your local recycling contractor for advice.

## SURFACE APPLICATIONS

### DIGITAL PRINT



Coala Printbond's optimised Digital Matt White surface is perfect for UV Flatbed printing. Additionally uniform flatness, caliper and dimensional sheet stability ensure the panel is an excellent choice for full coverage digital printing. Ensure any panels are kept clean and free from dust, dirt and grease and please wear 'lint-free' gloves when handling panels once the protective liner has been removed.

### SCREEN PRINTING



Coala Printbond is perfectly suited to Screen Printing. Test your preferred inks prior to printing and follow the ink manufacturers guidelines. It is advisable to wipe the panel prior to printing with Isopropanol Alcohol. Apply using a soft, clean cloth and not directly to the panel. Allow sufficient time for the alcohol to evaporate from the surface before printing.

### SPRAY PAINTING



Whilst Coala Printbond offers a colour matching service to match any specific RAL or PMS colour, it may sometimes be necessary to spray paint composite panels. Spray paint Coala Printbond Aluminium Composite panels with appropriate air drying acrylic paint, or a two-part polyurethane coating system.

### VINYL APPLICATION AND LAMINATION



Coala Printbond is perfect for the application of Vinyl and Laminates. Please make sure the surface is kept clean and free from dirt and grease prior to application. Vinyl can be either wet or dry applied ideally with the use of a laminator (Please be aware that the raised profile of UV inks applied to a non-porous substrate can lead to problems with lamination.) Antalis can provide a range of Vinyl's & Laminates ideal for application to Aluminium Composite panels, please ask for more details.

## FIXING

### HOT AIR WELD



The Coala Printbond core is easily welded with the use of a polyethylene welding rod.

### GLUING, ADHESIVES AND SEALANTS



The aluminium surface of Coala Printbond is suitable for bonding with appropriate adhesive types. This is dependent upon the secondary surface being adhered to. Always consult your adhesive supplier and test prior to application. Avoid the usage of vinyl acetate type adhesives as these will cause corrosion of the aluminium panel surface.

Distortion of the panel may result from the effect of different rates of thermal expansion between the two material types being bonded. Choose adhesives with sufficient flexibility to allow for thermal movement. Drying of the adhesive can also result in deformation of the panel surface as the adhesive shrinks. Consult your adhesive supplier for best advice.

Coala Printbond can be fixed with the use of standard high strength double-sided tapes. Additionally suitable Velcro fixings can be utilised where a detachable application may be required.

**Sealant** - In order to ensure waterproofing of joints in exterior applications it is normal to apply sealant to the joints. The sealant should be matched to the atmospheric requirements - silicone, Polysulfide and polyurethane sealants can all be used. Please follow manufacturers guidelines in application.

### SCREW FIXING



Coala Printbond may be screw fastened using the appropriate stainless steel fascia screws and washers. Allowance must be made in the screw hole for any thermal expansion. The use of countersunk screws are only recommended for internal applications.

### RIVETING



Coala Printbond can be riveted for exterior applications using aluminium blind rivets with stainless steel mandrels to avoid any issues with edge corrosion. The use of countersunk rivets are only recommended for any interior applications.

## FORMING

Choice of the appropriate 0.30mm grade is required for forming

### BENDING

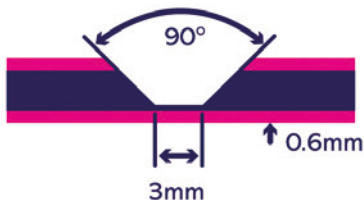


Coala Printbond can be easily formed to a curve using a standard three or four roll bending machine, as used for standard sheet metal work. Additionally the panels may be formed on a 'Press Brake' folding machine.

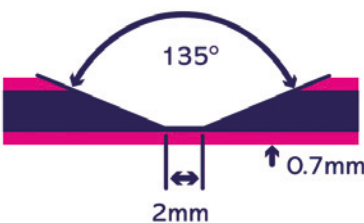
### ROUTING AND FOLDING



Appropriate Coala Printbond panels may be routed and folded using conventional CNC routing machines, vertical panel saws or hand-held routing devices. V-shaped or rectangular grooves should be routed into the reverse side of the panel along the proposed folding edge. A thin layer of core (0.3mm-0.4mm) should be retained at the base for folding to prevent any crazing of the paint surface. Ambient temperature during the folding process should not be any less than +16°C.



90° V-groove for folds up to 90°



135° V-groove for folds up to 135°

Further guidance is available from Antalis' *Coala Printbond CNC recommendations*. Please ask your branch for guidance.

## CUTTING

### SAW CUTTING



Coala Printbond panels can be cut with various saw types including vertical panel saws, circular saws or jigsaws. Please use a suitable carbon tipped blade.

### DIE CUTTING - PUNCHING



Coala Printbond can be cut / punched using standard sheet metal punching machines. Ensure 0.1 mm cutting clearance and sharp dies for the cleanest cuts. Expect a slight surface deflection from punch impact.

### SHEARING



Coala Printbond can be cut on a conventional guillotine. A shearing angle of  $\leq 1.5^\circ$  and minimum clearance is the prerequisite for best cut quality. Protection of the panel surface under clamping during cutting is recommended. Expect slight deformation of the panel edge from guillotine cutting.

### CONTOUR CUTTING



Coala Printbond is easily contour cut to shapes with the use of CNC or hand-held jigsaw type devices.

### DRILLING



Coala Printbond can be drilled by using an appropriate drill bit for aluminium and plastic. When cutting large holes a drill bit with a locating point is recommended. The hole size should allow for any thermal expansion.

The following technical details are issued to the best of our knowledge, however, without any responsibility for results due to several different kinds of material and application processes. Therefore, we highly recommend that before every usage a test should be conducted on the original material. Antalis cannot be responsible for any damage to the printer caused by printing our media.